

Listing of Claims:

1. (currently amended) A seismic isolator for a structure supported on a mounting surface, the structure including a base having an inner surface facing the mounting surface and an outer surface opposite the inner surface, comprising:

a load shaft having opposing first and second ends, the first end adapted to be secured to the mounting surface, and the load shaft sized so that the second end of the load shaft extends beyond the outer surface of the base of the structure;

an actuator having a mounting end adapted to be secured to the base and a driver spaced apart from the mounting end; and

a resilient element including a friction spring operably interposed between the driver and the second end of the load shaft to allow relative motion between the mounting surface and the structure in the event of a seismic shock or other external applied force and to absorb or dissipate energy of such relative motion, thereby attenuating the effect on the structure of the seismic shock or other external applied force.

2. (cancelled).

3. (currently amended) A seismic isolator for a structure supported on a mounting surface, the structure including a base having an inner surface facing the mounting surface and an outer surface opposite the inner surface, comprising:

a load shaft having opposing first and second ends, the first end adapted to be secured to the mounting surface, and the load shaft sized so that the second end of the load shaft extends beyond the outer surface of the base of the structure;

an actuator having a mounting end adapted to be secured to the base and a driver spaced apart from the mounting end, according to claim 1 wherein the actuator includes including a tubular actuator stem into which the load shaft extends; and

a resilient element operably interposed between the driver and the second end of the load shaft to allow relative motion between the mounting surface and the structure in the event of a seismic shock or other external applied force and to absorb or dissipate energy of such relative motion, thereby attenuating the effect on the structure of the seismic shock or other external applied force.

4. (original) A seismic isolator according to claim 1 wherein the resilient element resists relative motion in a first direction, and further comprising a secondary resilient element operably interposed between the driver and the mounting surface to resist relative motion in a second direction opposite the first direction.

5. (currently amended) A seismic isolator for a structure supported on a mounting surface, the structure including a base having an inner surface facing the mounting surface and an outer surface opposite the inner surface, comprising:

a load shaft having opposing first and second ends, the first end adapted to be secured to the mounting surface, and the load shaft sized so that the second end of the load shaft extends beyond the outer surface of the base of the structure;

an actuator having a mounting end adapted to be secured to the base and a driver spaced apart from the mounting end;

a primary resilient element operably interposed between the driver and the second end of the load shaft to allow relative motion between the mounting surface and the structure in the event of a seismic shock or other external applied force and to absorb or dissipate energy of such relative motion, thereby attenuating the effect on the structure of the seismic shock or other external applied force, wherein the primary resilient element resists relative motion in a first direction; and

a secondary resilient element operably interposed between the driver and the mounting surface to resist relative motion in a second direction opposite the first direction, according to claim 4 wherein the secondary resilient element includes including a second friction spring.

6. (original) A seismic isolator according to claim 4 wherein the load shaft includes a radially extending shoulder located proximal of the first end for supporting the secondary resilient element opposite the driver.

7. (original) A seismic isolator according to claim 4 wherein the actuator or the load shaft, or both, are adjustable for selectively applying a preload to the secondary resilient element.

8. (original) A seismic isolator according to claim 1 wherein the structure supports an item of equipment in an electric power system.

9. (original) A seismic isolator according to claim 1 wherein no part of the seismic isolator extends below the base of the structure.

10. (original) A seismic isolator according to claim 1 wherein the load shaft is secured to the mounting surface via a threaded mounting stud that extends outwardly from the mounting surface and through the base of the structure.

11. (original) A seismic isolator according to claim 1, further comprising a cap secured to the second end of the load shaft to retain the resilient element.

12. (original) A seismic isolator according to claim 11 wherein the cap is adjustably secured to the load shaft for positioning therealong to selectively apply a preload to the resilient element.

13. (currently amended) An apparatus for protecting a structure from seismic shock or other external applied force, comprising

a load shaft having opposing first and second ends, the first end adapted to be secured to a mounting surface on which a base of the structure is supported, such that the second end of the load shaft projects beyond the base;

an actuator extending along the load shaft, the actuator having opposing mounting and driving ends, the mounting end located proximal of the first end of the load shaft and adapted to be supported on the structure, and the driving end extending toward the second end of the load shaft; and

a resilient element operably interposed between the driving end of the actuator and the second end of the load shaft to allow relative motion between the mounting surface and the structure in the event of a seismic shock or other external applied force, and to absorb or dissipate energy of such motion, wherein the resilient element resists relative motion in a first direction; and

a secondary resilient element operably interposed between the driving end of the actuator and the mounting surface to resist relative motion in a second direction opposite the first direction,

wherein the load shaft includes a radially extending shoulder located proximal of the first end for supporting the secondary resilient element opposite the driving end of the actuator.

14. (original) An apparatus according to claim 13 wherein:
the resilient element includes a primary annular friction spring assembly;
the load shaft comprises an elongate member that extends axially through the friction spring assembly; and
the actuator includes a tubular member surrounding at least a section of the load shaft.

15. (original) An apparatus according to claim 14 wherein the primary annular friction spring assembly resists relative motion in a first direction, and further comprising a secondary annular friction spring assembly supported on the load shaft between the driving end of the actuator and the mounting surface to resist relative motion in a second direction opposite the first direction.

16. (original) An apparatus according to claim 13 wherein the mounting end of the actuator is securely attached to the structure.

17. (cancelled).

18. (cancelled).

19. (currently amended) An apparatus according to claim ~~17~~ 13 wherein the actuator includes an annular driver supported proximal of the driving end of the actuator for transmitting force from the base of the structure to the primary and secondary resilient elements.

20. (original) An apparatus according to claim 19 wherein the driver is detachable from the actuator for facilitating servicing of the apparatus after installation.

21. (original) An apparatus according to claim 16 wherein the structure supports an item of equipment in an electric power system.

22. (original) An apparatus according to claim 13 wherein the load shaft is secured to the mounting surface via a threaded mounting stud that extends outwardly from the mounting surface and through the base of the structure, such that no part of the apparatus extends below the base of the structure.

Claims 23-30 (cancelled).

31. (new) A seismic isolator according to claim 3 wherein the resilient element includes a friction spring.

32. (new) A seismic isolator according to claim 3 wherein the resilient element resists relative motion in a first direction, and further comprising a secondary resilient element operably interposed between the driver and the mounting surface to resist relative motion in a second direction opposite the first direction.

33. (new) A seismic isolator according to claim 32 wherein the secondary resilient element includes a second friction spring.

34. (new) A seismic isolator according to claim 32 wherein the load shaft includes a radially extending shoulder located proximal of the first end for supporting the secondary resilient element opposite the driver.

35. (new) A seismic isolator according to claim 32 wherein the actuator or the load shaft, or both, are adjustable for selectively applying a preload to the secondary resilient element.

36. (new) A seismic isolator according to claim 3 wherein the structure supports an item of equipment in an electric power system.

37. (new) A seismic isolator according to claim 3 wherein the load shaft is secured to the mounting surface via a threaded mounting stud that extends outwardly from the mounting surface and through the base of the structure.

38. (new) A seismic isolator according to claim 5 wherein the primary resilient element includes a friction spring.

39. (new) A seismic isolator according to claim 5 wherein the actuator includes a tubular actuator stem into which the load shaft extends.

40. (new) A seismic isolator according to claim 5 wherein the load shaft includes a radially extending shoulder located proximal of the first end for supporting the secondary resilient element opposite the driver.

41. (new) A seismic isolator according to claim 5 wherein the actuator or the load shaft, or both, are adjustable for selectively applying a preload to the secondary resilient element.